

Abstract

A wastegate valve for a turbocharger that is separate from the turbocharger has an actuator mounted to a valve housing. The valve housing has a passage therethrough and a swing valve that opens and closes the passage. The swing valve has a pivot point that lies outside the path of the exhaust gases. The passage has a recess therein that receives a portion of the swing valve in its open position to improve the flow of exhaust gases through the passage. In an internal combustion engine system, the wastegate valve forms part of a bypass conduit that redirects a portion of the exhaust gases from an engine away from and past the turbocharger.